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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,625	09/23/2003	Min-Jeong Kang	678-1111 (P10575)	2183

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EXAMINER

EISEN, ALEXANDER

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,625

Applicant(s)

KANG ET AL.

Examiner

Alexander Eisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☒ Claim(s) 11 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/1/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 5 is objected to because of the following informalities: "recognition date" in line 3 of claim 5 should read - - recognition data - -. Appropriate correction is required.
3. Claim 9 is objected to because of the following informalities: claim 9 recited "apparatus according to claim 7". It is believed that it should read - - apparatus according to claim 8 - - since "said image" recited in claim 9 is firstly mentioned in claim 8 as "an image". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 6, 7 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Chisaka, US 5,864,636.

With respect to claim 1 Chisaka discloses an apparatus for executing a layer editing command in a pen computing system, the apparatus comprising a display screen 18 (FIG. 1) for

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displaying at least original text to be edited; a layer generating means for generating at least one transparent layer having a layer identifier in response to a layer editing command; a memory 15 for storing trail information written on said display screen, and for storing positional information corresponding to said trail information; and a control section 17 for displaying the generated transparent layer over said original text, sensing a pen input (in coordinate input section 11), outputting a trail of the sensed pen input on the display screen, and storing said trail information and said positional information in said memory (see FIGS. 1-2; col. 11, lines 5-20; col. 12, lines 12-54).

As pertaining to claim 2, the generated transparent layer 22 includes the same text format as the original text (see examples in FIS 8 and 24 with related description, where the text is added to the original text with the same format).

As pertaining to claim 6, Chisaka discloses an apparatus (FIG. 1) for executing a layer editing command in a pen computing system, the apparatus comprising a display screen 18 for displaying at least original text to be edited; a layer generating means for generating at least one transparent layer having a layer identifier (starting coordinate x,y) in response to a layer editing command (a user starts writing); a recognition processor 13 for translating trail information written on said display screen into computer-processible recognition data; a memory (11, 15 and 16) for storing said trail information, corresponding positional information, and said recognition data; and a control section 17 for displaying said generated transparent layer over said original text, for sensing a pen input and outputting a trail of said sensed input on said display screen, and for causing said trail information, said positional information, and said recognition data to be stored in said memory.

As pertaining to claim 7, the transparent layer has the same text format as the original text (see discussion related to similar claim 2).

With respect to claim 13, Chisaka discloses a method of executing an editing command in a pen computing system, the method comprising the steps of (a) entering a layer editing mode for editing original text displayed on a screen (in a display area 21) in response to a user's demand (starting writing in the display area 21 with a pen 24); (b) generating a transparent layer 29 having a layer identifier (coordinates of a starting point recorded by coordinate input section 11); (c) sensing trail information generated by a pen input and corresponding positional information and displaying said trail and positional information on said transparent layer; and (d) storing said sensed trail information and positional information according to said layer identifier (col. 15, lines 14-57).

As pertaining to claim 14, the transparent layer generated in step (b) has the same text format as said original text (see relevant discussion directed to the subject matter of claims 2 and 7).

As pertaining to claim 15, the method includes a process of displaying said transparent layer over said original text (col. 15, lines 24-29).

As pertaining to claim 16, the method comprises simultaneously displaying more than one layer in response to said user's demand (one underlying document layer and one transparent layer for editing – total of two layers).

As pertaining to claim 17, the method further comprises step (e) of translating said trail information into computer-processable recognition data (by character recognizing section 13 – see FIG. 13 and relevant description).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4, 5, 8, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chisaka in view Drews et al., US 5,893,126, hereinafter Drews.

With respect to claims 3-9 and 21 Chisaka discloses an apparatus for executing a layer editing command in a pen computing system and associated with it method, storing the trail information, starting coordinate of the trail and corresponding positional information as an image (col. 11, ll. 43-50; col. 12, ll.16-54), but does not discloses that this information is accessible by searching at least one index for at least one layer identifier; or that the control section is capable of displaying more than one transparent layer sequentially over original text, thereby forming multiple layers over the original text.

Drews teaches a method and an apparatus for annotating a document using multiple overlay windows, which can be stored or recalled separately to present corrected or annotated images as a single combined document, whereas annotating windows have a transparent background so that the original document is seen through the windows (FIGS. 3-4; col. 3, ll. 17-33; col. 6, ll. 6-10; col. 6, ll. 37-42; col. 9, ll. 23-39).

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to employ multiple overlay windows taught by Drews in the editing system

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of Chisaka, because it would allow the latter to create a variety of annotations, which can be separately presented for a user as potential versions for correction.

While Drews is not explicit about an identifier for such annotations windows, it would have been obvious to one of ordinary skill in the art at the time when the invention was made that creating the annotation windows and redrawing them with the original document at the user's discretion, as taught by Drews, would require those windows to have some type of identifier. For example, all windows in FIGS. 3-4 clearly show familiar to those artisans File menu, which is conventionally has Save option for saving a file by assigning it a name (identifier), which can be later on used to recall this file, and exactly what the application described by Drew does.

As pertaining to claim 4, Drews also teaches more than one transparent layer sequentially over original text, thereby forming multiple layers over the original text (col. 9, ll. 35-40).

As pertaining to claim 5 the apparatus further comprises a recognition processor (13 in Chisaka) for analyzing said trail information and translating said trail information into computer-processible recognition data, wherein said recognition data comprises editing symbols, font symbols, special characters, or lexigrams, and wherein said recognition data is stored separately by layer in the memory 16, according to the index (inherent for memory system).

As pertaining to claim 8, the memory stores generated layer according to said layer identifier, wherein said trail information is stored as an image, said positional information is stored as the start coordinate of the trail, and the recognition data is stored (Id. Chisaka; FIG. 1; memory 16 for storing recognition data) according to at least one index (inherent for storage

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memory since each memory is characterized by an address space presented by indexes – addresses).

As pertaining to claim 9, the compression of images before storing them into a memory is well known in the art and is used for the benefit of saving memory space. Hence it would have been obvious to one of ordinary skill in the art at the time when the invention was made to use compression before storing the images of handwriting of Chisaka into a memory.

As pertaining to claim 10, Drews teaches displaying a plurality of transparent layers sequentially over the original text in response to a user's demand, thereby forming multiple layers over the original text (col. 9, ll. 23-39; user controls the number of layer using a mouse for invoking annotation application).

8. Claims 12, 18, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chisaka in view of Okamoto et al., US 6,088,481, hereinafter Okamoto.

With respect to claims 12 and 18-20 Chisaka does not disclose recognition of editing handwritten symbols along with the other handwritten information and carrying out an editing function corresponding to that editing symbol, combine changes and generating a new text for displaying.

Okamoto teaches a handwritten characters input device, wherein a recognition portion recognizes a written character or an editing handwritten symbol and outputs them to the screen for displaying or carrying out the editing function.

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to add to the recognition section 13 of handwriting system of Chisaka the

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capability taught by Okamoto, because it would complement the writing recognition function with editing capabilities and allow therefore to enhance it with making needed corrections if mistakes were made during writing.

In addition, in regards to claims 18 and 19, Chisaka discloses storing of recognition data.

Allowable Subject Matter

9. Claims 11 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art has been found that suggest a modification of or a combination with the cited prior art so as to arrive to the combination of all limitations of claims 11 and 21, namely, an apparatus and method including control section accessing at least one transparent layer from the memory in response to a user's demand, and displays the at least one transparent layer over the original text, the transparent layer including the trail information and said recognition data; or a step comprising providing for the user to review the recognition data for errors; and providing for the correction of the errors; wherein a separate window is provided for input by the user to correct the errors.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Geidl, US 2003/0071850 A1, discloses in-place adaptive handwriting input using a transparent overlay.

Partanen et al., US 2003/0011899, discloses semi-transparent handwriting recognition.

Sakushima et al., JP 06-195334, discloses document editing using a transparent window overlay. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (571) 272-7687. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Eisen
Primary Examiner
Art Unit 2629

4 May 2006